

Applicant: Edward R. Burns and Vadiraja Murthy
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Amendments to the Claims:

Please amend claim 20 as set forth below.

1-19. (Canceled)

~~1~~ 20. (Currently amended) A method for diagnosing erythrocyte hemolysis in a subject who is suspected of having erythrocyte hemolysis in vivo, the method ~~comprising~~ ^{consisting essentially of} the steps of:

- (a) obtaining a serum sample from said a subject who is suspected of having erythrocyte hemolysis in vivo; and
- (b) determining the level of erythrocyte adenylate kinase activity in said sample, the presence of at least about 20 U/L erythrocyte adenylate kinase activity in said sample being indicative of erythrocyte hemolysis in vivo in said subject.

21-23. (Canceled)

~~2~~ 24. (Previously presented) A method for diagnosing erythrocyte hemolysis in a subject who may have erythrocyte hemolysis, the method comprising the steps of:

- (a) obtaining a serum sample from the subject; and
- (b) determining the level of erythrocyte adenylate kinase activity in the sample by determining a value for total adenylate kinase activity in the serum sample; determining a value for percentage erythrocyte adenylate kinase in the sample; and determining erythrocyte adenylate kinase activity in the sample by multiplying the

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value for percentage erythrocyte adenylate kinase by the value for total adenylate kinase activity,

the presence of at least about 20 U/L erythrocyte adenylate kinase activity in the sample being indicative of erythrocyte hemolysis in the subject.

25. (Canceled)

3 26. (Previously presented) A method for diagnosing erythrocyte hemolysis in a subject who may have erythrocyte hemolysis, the method comprising the steps of:

(a) obtaining a serum sample from the subject; and
(b) determining the level of erythrocyte adenylate kinase activity in the sample using an antibody that is specific for and binds to erythrocyte adenylate kinase,

the presence of at least about 20 U/L erythrocyte adenylate kinase activity in the sample being indicative of erythrocyte hemolysis in the subject.

27-32. (Canceled)

4 33. (Previously presented) The method of claim 26, where the antibody is detected using a radioimmunoassay.

5 34. (Previously presented) The method of claim 26, where the antibody is detected using an enzyme-linked immunosorbent assay (ELISA).

6 35. (Previously presented) The method of claim 26, where the antibody is

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detected using immunoprecipitation.

7 ~~36.~~ (Previously presented) The method of claim ~~26~~³, wherein the antibody is labeled with a detectable marker.

8 ~~37.~~ (Previously presented) The method of claim ~~26~~³, wherein the antibody is labeled with a radioisotope.

9 ~~38.~~ (Previously presented) The method of claim ~~26~~³, wherein the antibody is labeled with radioactive iodine.